

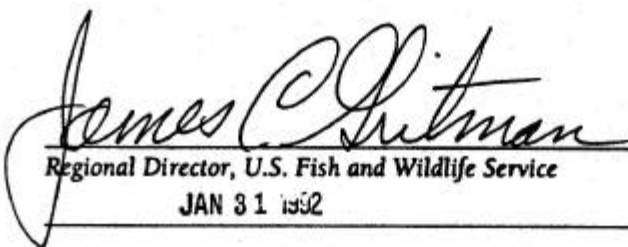
APPENDIX F

**RECOVERY PLAN
FOR THE
EASTERN TIMBER WOLF**

Revised 1992

Original Recovery Plan Approved June 5, 1978

**Prepared by the Eastern Timber Wolf Recovery Team
for
Region 3, U.S. Fish and Wildlife Service
Twin Cities, Minnesota**

Approved: 
Regional Director, U.S. Fish and Wildlife Service
Date: JAN 31 1992

APPENDIX F



EASTERN TIMBER WOLF

RECOVERY PLAN

ACKNOWLEDGEMENTS

The U.S. Fish and Wildlife Service gratefully acknowledges the efforts of the many individuals that have contributed their energy and time - official as well as personal - to the preparation of this recovery plan. We especially extend our appreciation to the current recovery team members, as well as former team members William Hickling, LeRoy Rutske, and Robert Linn, and recovery team consultants Tom Weise and John Mathisen. Ron Refsnider, staff biologist in the Endangered Species Division, Twin Cities, Minnesota, was instrumental in getting this recovery plan revised and finalized. Many other individuals have also assisted in this effort and we sincerely thank them all for their various contributions.

This document should be cited as follows:

U.S. Fish and Wildlife Service. 1992. *Recovery Plan for the Eastern Timber Wolf*. Twin Cities, Minnesota. 73 pp.

Additional copies may be purchased from:

Fish and Wildlife Reference Service
5430 Grosvenor Lane, Suite 110
Bethesda, Maryland 20814
301-492-2603 or 1-800-582-3421

The fee for a recovery plan varies depending upon the number of pages in the plan.

APPENDIX F

EASTERN TIMBER WOLF

RECOVERY PLAN

SUMMARY

Current Status: The eastern timber wolf is a subspecies of the gray wolf and is listed as threatened in Minnesota and endangered throughout the remainder of its historic range in the eastern United States. A stable and growing population estimated at 1550 to 1750 wolves currently exists in Minnesota. Approximately 45 to 60 wolves comprise a second population in northern Wisconsin and the Upper Peninsula of Michigan. An additional thirteen or fourteen wolves are located in Isle Royale National Park, Michigan.

Habitat Requirements and Limiting Factors: This subspecies cannot survive over the long term without (1) large tracts of wild land with low human densities and minimal accessibility by humans, and (2) the availability of adequate wild prey, largely ungulates and beaver. Currently, it is believed that there exists sufficient suitable habitat in Minnesota, Wisconsin, and Michigan to achieve the recovery criteria.

Recovery Objective: Delisting.

Recovery Criteria: At least two viable populations within the 48 United States satisfying the following conditions must exist: (1) the Minnesota population must be stable or growing, and its continued survival be assured, and (2) a second population outside of Minnesota and Isle Royale must be re-established, having at least 100 wolves in late winter if located within 100 miles of the Minnesota wolf population, or having at least 200 wolves if located beyond that distance. These population levels must be maintained for five consecutive years before delisting can occur. A Wisconsin-Michigan population of 100 wolves is considered to be a viable second population, because continued immigration of Minnesota wolves will supplement it demographically and genetically for the foreseeable future.

Reclassification Criterion: The Wisconsin wolf population should be reclassified to threatened status when the late-winter Wisconsin population is maintained at 80 wolves for three consecutive years. Reclassifying Michigan wolves also may be considered at that time.

APPENDIX F

EASTERN TIMBER WOLF

RECOVERY PLAN

Summary of Major Changes in this Revision:

1. The Plan describes the characteristics of a "viable population" of wolves at two levels of geographic isolation from the Minnesota population. (These characteristics were absent from the original 1978 Plan, but were added to it in 1981.) The Plan also specifies that populations must exhibit these characteristics for at least five consecutive years to be considered viable.
2. A Wisconsin wolf population of 80 or more for three successive years will allow reclassification to "threatened" in Wisconsin, and possible reclassification in Michigan.
3. The importance of minimizing roads open to the public within wolf habitat is described and quantified in a "road density statement."
4. The Plan recommends changes to the wolf depredation control program in Minnesota to allow non-lethal control of depredating wolves in Zone 1, and more timely action at sites of repeated depredations in Zones 4 and 5.
5. Several changes to the Minnesota Wolf Management Zone boundaries are recommended to improve the original delineations. These recommendations stem from better information on habitat conditions and wolf numbers in portions of Zones 3, 4, and 5, and from the previous unwarranted inclusion of several communities and built-up areas within Zone 1.
6. Areas in the southern and central Appalachian Mountains are no longer being considered for future eastern timber wolf reintroduction.
7. The list of factors that are critical threats to the long-term survival of the eastern timber wolf has been expanded to include diseases and parasites.

APPENDIX F



EASTERN TIMBER WOLF

RECOVERY PLAN

Summary of Major Actions Needed:

1. Increase public education programs on wolf restoration.
2. Monitor wolf populations, habitat conditions, and prey base.
3. Maintain suitable habitat conditions and prey populations throughout recovery areas.
4. Provide concerted law enforcement activities.
5. Minimize losses of domestic animals due to wolf predation.
6. Evaluate need and feasibility of restoring wolves to Maine-New Hampshire and/or New York.

Total Estimated Cost of Recovery: \$13,500,000

Estimated Date of Recovery: 2005

APPENDIX F

EASTERN TIMBER WOLF

RECOVERY PLAN

TABLE OF CONTENTS

	Page
I INTRODUCTION	10
A. Wolf Biology and Life History	10
B. Hybridization.....	12
C. Present Range and Population.....	13
D. Range Restrictions.....	15
E. Critical Factors	16
F. Human Density and Accessibility - Road Density Statement.	17
Distribution of roads.....	18
Risk of the expected human use of roads.....	18
Road design factors influencing human use of roads	18
Road management	19
Road management guidelines.....	19
G. Ecologically Sound Management	19
H. Wild Prey.....	20
I. Public Education.....	22
J. Parasites and Diseases.....	22
II. RECOVERY	23
A. Objective.....	23
Background.....	23
Viable Population	24
Wolf population goals.....	26
Methods of achieving goals.....	26
B. Recovery Plan Outline	28
C. Literature Cited.....	36
III. IMPLEMENTATION TABLE.....	42

APPENDIX F

EASTERN TIMBER WOLF

RECOVERY PLAN

APPENDIX I

PAST, PRESENT, AND POTENTIAL EASTERN TIMBER WOLF RANGE 55

Part 1 - Areas to be Investigated for Wolf Re-establishment 56

Part 2 - Eastern Timber Wolf Area Status Map 58

APPENDIX II

SUMMARY OF BASIC DATA FROM FWS/USDA WOLF-LIVESTOCK DEPREDATION CONTROL PROGRAM IN MINNESOTA (1979-91)..... 59

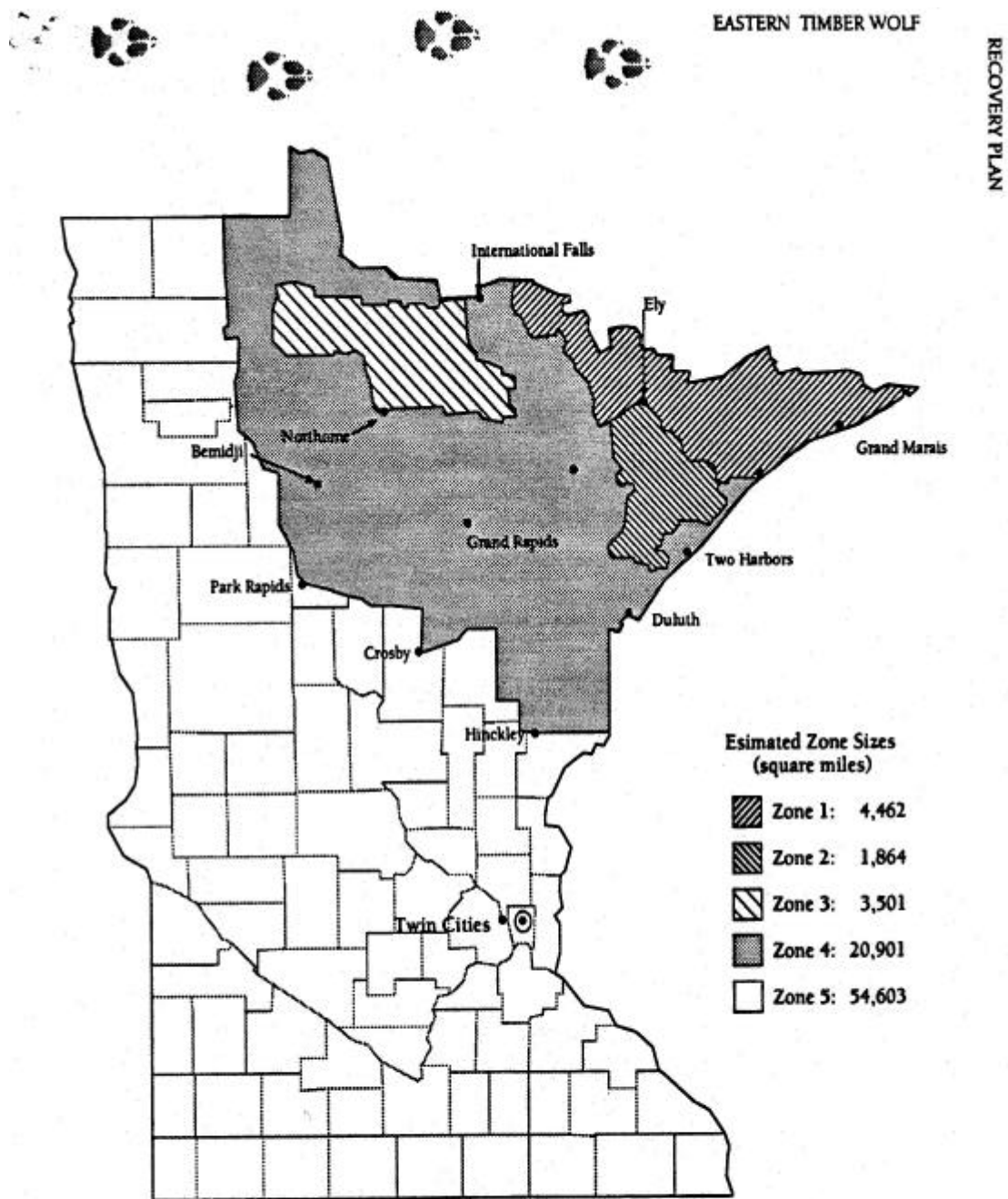
APPENDIX III

CRITICAL HABITAT AND MINNESOTA WOLF MANAGEMENT ZONES 68

Map - Minnesota Wolf Management Zones..... 72

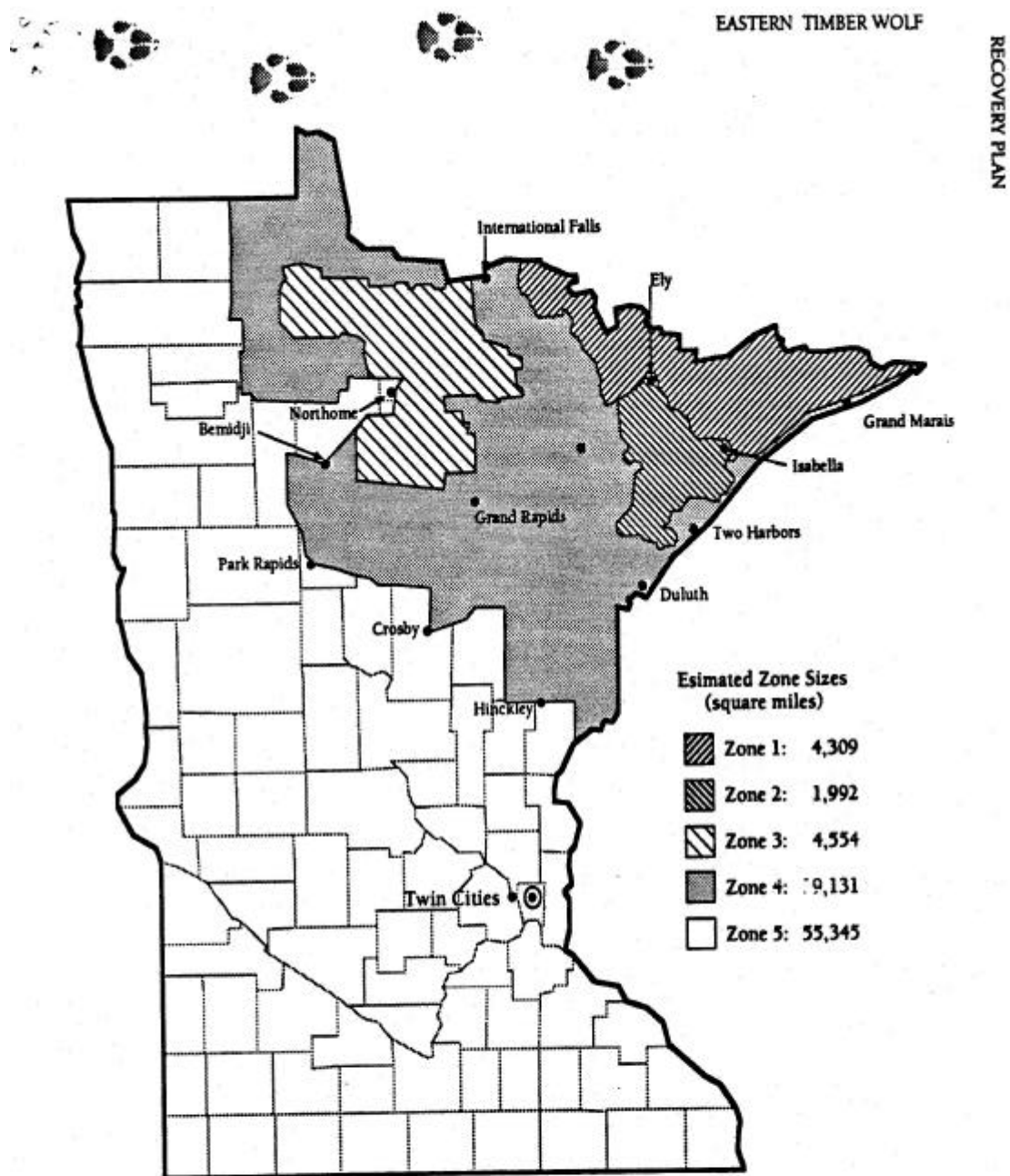
Map - Proposed Minnesota Wolf Management Zones..... 73

APPENDIX F



Current Wolf Management Zones

APPENDIX F



Proposed Wolf Management Zones

